

REMARKS

It is noted that Claims 9-17 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter because it includes the human body as an element thereof; Claims 1-10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by cited Kasevich et al. (US 5057106) for the reasons set forth by the Examiner in the Office action, and Claims 11-16 are rejected under 35 U.S.C. 103 as being unpatentable over Kasevich et al. further in view of cited Sterzer et al, (US 5688050)) for the reasons set forth by the Examiner in the Office action.

Independent Claims 1 has been amended in the light of the teachings of the cited Kasevich et al. patent. As amended, the preamble of Claim 1 makes it clear that, in use, the balloon catheter (1) with its balloon in a deflated state may first be positioned so that its antenna is aligned with a patient's diseased tissue and (2) the balloon may then be inflated so that an exterior surface of the balloon presses the diseased tissue while the antenna transmits radiant energy to the diseased tissue thereby to effect the heating of the diseased tissue. Further, as amended, the improvement to the antenna defined in Claim 1 states that the antenna is longitudinally physically situated in cooperative relationship with the exterior surface of the balloon, thereby in use causing the inflated balloon pressing the diseased tissue to result in the antenna being in direct contact with irradiated tissue of the patient. For the following reasons, it is submitted that this amendment of Claim 1 overcomes the Examiner's grounds of rejection of Claim 1 and renders amended Claim 1 allowable:

The antenna shown in FIGURE 4 of Kasevich et al., as well as in several other figures of Kasevich et al., are all disposed within the interior of the balloon material and, thus, are situated, as shown, in between the interior and exterior surfaces of their balloon. Therefore, FIGURE 4 of Kasevich et al., as well as these several other figures of Kasevich et al, do not show an antenna which is longitudinally physically situated in cooperative relationship with the exterior surface of the balloon, thereby in use causing the inflated balloon pressing the diseased tissue to result in the antenna being in direct contact with irradiated tissue of the patient.

Further, while it is true that Kasevich et al., in Column 5, lines 37 and 38, discloses an antenna inside the balloon (Kasevich et al., FIGURES 1, 3, 6

and 13), between the balloon surfaces (Kasevich et al., FIGURES 4 and 5) or outside the balloon (Kasevich et al., FIGURE 14), no antenna disclosed by Kasevich et al, is longitudinally physically situated in cooperative relationship with the exterior surface of the balloon, thereby in use causing the inflated balloon pressing the diseased tissue to result in the antenna being in direct contact with irradiated tissue of the patient. This is significant because Kasevich et al., in Column 5, lines 43-46, relies on their balloon being "fabricated with either a magnetic or dielectric lossy coating on its surface or the balloon itself may be loaded with a similar lossy material so as to provide direct balloon heating." Thus, Kasevich et al., teaches away from the invention defined in amended Claim 1.

For all the foregoing reasons, it is submitted that amended independent Claim 1 is patentable over the teachings of Kasevich et al, and should be now allowed,

Each of Claims 2-8, dependent on amended independent Claim 1, is submitted to be allowable for at least the same reasons as its amended parent Claim 1.

Independent Claim 9 has been amended in the light of the teachings of the cited Kasevich et al. patent and to omit including non-statutory subject matter therein. As amended, the preamble of Claim 9 is defines a system suitable for use in heat treating diseased prostate tissue of a patient, which system comprises a balloon catheter including a catheter body, an inflatable balloon surrounding the catheter body, and an antenna; wherein in use (1) the catheter with the balloon in a deflated state may first be inserted into an orifice of said patient and positioned so that the antenna is aligned with said patient's prostate tissue and (2) the balloon may then be inflated so that an exterior surface of the balloon presses against lining tissue of the orifice that is adjacent to the patient's prostate tissue. Further, as amended, the improvement to the antenna defined in Claim 9 states that the antenna is a directional antenna that (1) is longitudinally physically situated in cooperative relationship with the exterior surface of the balloon, thereby in use causing the inflated balloon pressing against the lining tissue of the orifice that is adjacent to the patient's prostate tissue, to result in the antenna being in direct contact with the lining tissue of the patient and (2) transmits radiant energy of a given frequency band to the diseased prostate tissue in response to power within the given frequency band being supplied to

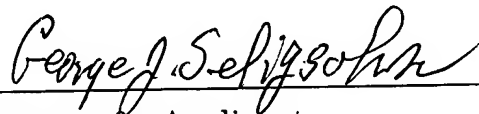
said antenna. The system suitable for use in heat treating diseased prostate tissue of a patient defined in amended Claim 9 also comprises a power source and means including a feedline for supplying a given amount of power within said given frequency band to said external directional antenna, thereby to irradiate said diseased tissue and thereby effect the heating to a given therapeutic temperature.

It is submitted that amended independent Claim 9 is patentable over the teachings of Kasevich et al, and should be now allowed for at least the same reasons set forth above in connection with amended independent Claim 1.

Each of Claims 10-17, dependent on amended independent Claim 9, is submitted to be allowable for at least the same reasons as its amended parent Claim 9.

It is believed that this application is now in condition for allowance and such action is solicited.

Respectfully submitted,



Attorney for Applicant

Registration No. 16933

Telephone No. (352) 854-1252